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AUTHOR Witkin, Belle Ruth
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ABSTRACT

The role of communication processes and strategies in needs assessment models and changes that have taken place in communication networks as a concomitant in school-community interaction is discussed in this paper. Federal and state legislatures and local communities have required that school districts document their needs and provide a rationale for the ways in which they spend their funds. As a consequence, a number of needs assessment models and data gathering instruments and procedures have emerged. The purpose of these models is to gather data for decision making, specifically for setting priorities for allocation of funds and for short- and long-range planning. The success of the needs assessment often depends almost entirely upon the effectiveness of the communication processes. Although there have been many published reports of needs assessments, including descriptions of methods used and results obtained, there have been very few critical or evaluative studies. (RB)

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COMMUNICATION STRATEGIES IN PUBLIC POLICY DECISION MAKING:
AN ANALYSIS OF PROCESSES IN MAJOR NEEDS ASSESSMENT MODELS
FROM A SYSTEMS POINT OF VIEW

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by

Belle Ruth Witkin, Ph.D.
Coordinator, Research and Evaluation
Alameda County School Department
685 A Street, Hayward, California 94541

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On a recent trip, I overheard a conversation in an airport limousine between two affluent young mothers, to this effect: "Government money given to the schools is rather frightening. One year all the children in the school can read. The next year, there are government funds for reading, and suddenly 50 percent of the children can't read!"

Who decides what the critical needs are in the schools? How are priorities set? And what role does communication play in the process?

The scramble for federal dollars for categorical aid to schools, which has been a feature of the educational scene in the last decade, has changed the rules of the game. Since the passage of the Elementary and Secondary Education Act of 1965, hundreds of millions of dollars have been awarded to school districts for compensatory education for the poor and disadvantaged, library materials, innovative programs, education of the handicapped, bilingual education, and special programs for dropout prevention. The act also set up regional educational laboratories (research, development, and dissemination centers), and provided funds to improve state departments of education.

The justification of requests for these funds has led to the development of new and more systematic methods of educational needs assessment. In turn, needs assessment has become a paradigm for a new kind of public policy decision making which is having far-reaching consequences for public education.

Needs assessment is generally a joint school-community effort in which the communication methods used may be absolutely crucial to the validity of the results. The purpose of this paper is to examine the role of communication processes and strategies in the most widely used needs assessment models and to analyze the changes that have taken place in communication networks as a concomitant

of changes in school-community interaction. I will be taking a macro view of the processes as they operate in a systems context in local school districts (LEA's) and in state departments of education (SEA's).*

I will also discuss some issues related to the move toward participative management in educational systems, and suggest some implications for organizational communication research.

NEEDS ASSESSMENT AND ACCOUNTABILITY

A major characteristic of educational policymaking in the last decade has been the growing demand for accountability in public education. Federal and state legislatures and local communities have required that school districts document their needs and provide a rationale for the way in which they spend their funds. Important outgrowths of this movement have been:

1. The rise of systems approaches to educational planning and evaluation, including PPBS.
2. The involvement of various sectors of the non-educational community in educational goal setting.
3. The participation of lay advisory committees in planning, implementing, and evaluating new programs and projects.
4. The active participation of all sectors of the community in assessing educational needs and setting priorities for immediate and long-range program planning.

As a consequence of these developments, a number of needs assessment models and data gathering instruments and procedures have emerged. Some were produced by school districts, state departments of education, or institutions of higher learning. Some have been published by educational consulting firms or regional research and development laboratories. They range from paper and pencil surveys and simple Q-sorts to elaborate and comprehensive systems, packaged as kits, for

*Recently institutions of higher education have also begun conducting needs assessments, but their efforts are still too new to tell what the major trends will be.

carrying through the entire process from goal setting to prioritizing needs.

Needs assessments are undertaken, then, to gather data for decision making--specifically, on setting priorities for allocation of funds and for short- and long-range planning.

The process may take from a few weeks to a year or more, and in almost all cases involves some type of structured communication setting and a variety of communication strategies for arriving at decisions. Models may combine data collection and analysis procedures of varying degrees of sophistication with variations of town forums, the Delphi technique, small group discussions, or structured group tasks.

The success of the needs assessment often depends almost entirely upon the effectiveness of the communication processes at all stages and particularly on the free interaction and resolution of discrepant perceptions and conflicts among the different publics involved.

Although there have been many published reports of needs assessments, including descriptions of methods used and results obtained, there have been very few critical or evaluative studies, and only two or three in which the communication parameters have been directly addressed.

DEFINITIONS

The most commonly accepted definition of a need is "the measurable discrepancy (or gap) between current outcomes and desired or required outcomes." (Kaufman 1972). Variations of this are: "the difference between 'what is' and 'what should be'"; "the discrepancy between 'what is' and 'what is required'."

A needs assessment is a procedure for determining, at a minimum: (1) the desired state of affairs in respect to the area being assessed, (2) the present conditions which exist in that area, and (3) the determination of the kinds and degrees of discrepancy which obtain between (1) and (2).

Needs assessments can be directed to learner needs, institutional needs, or

both. Learner needs are usually stated in terms of some desired performance. Institutional needs may refer to programs, resources, or management.

COMPONENTS OF NEEDS ASSESSMENT

Although there is considerable variation among needs assessment models as to their contents and procedures, a complete model will generally have four components: (1) statements of goals, or desired states, which are ranked in order of importance, (2) procedures for ascertaining the present status of those goals or states, (3) methods for identifying and describing discrepancies between the goals and the present status, and (4) methods for assigning priorities to the discrepancies found in step 3.

Many models focus on the goal setting and ranking process. In fact, "goal setting" is sometimes (mistakenly) taken as synonymous with "need identification." Some models ascertain "what is" solely through perceptions of various publics; others use achievement test scores, demographic data, and other fact-finding methods. Discrepancy analyses range from simple methods based on differences between two sets of ranks, to complex correlational methods and decision rules.

Descriptions of a number of published kits, guidebooks, and needs assessment instruments will be found in the Appendix.* They indicate the variety of approaches and emphases, as well as the features held in common.

NEEDS ASSESSMENT IN A SYSTEM CONTEXT

Figure 1 gives a model of basic system-environment relations, which is appropriate for the analysis of needs assessment by school systems. In the typical

Insert Figure 1

needs assessment situation, the system is a school district with well-defined geographical and physical boundaries. It operates in an environment which is defined

by its assigned attendance area, and in a still larger environment, less-well bounded, of a municipal or similar political unit. In turn, the system with its immediate environment is a subsystem of the state educational system, and finally, of the entire country.

The instructional system consists of interactions and interrelations among six components: the learner, the teacher, the curriculum, the relevant methods-means-media, the learning environment, and the learning. The valued targets are future-oriented states of expectations, goals, objectives, needs, problems, and/or demands that generate forces for instructional change. Such targets establish significant relations between an instructional system and its environment and predicate the system's purposes and output requirements.

Outputs are goal-oriented products, services, and/or benefits that the system produces and/or effects as a result of its performance. Inputs are resources, energy, and information used to maintain the system or which are transformed into instructional outputs.

Feedback control establishes a "closed-loop" pattern of relations in the system by transferring information regarding the quality of outputs back along the feedback loop and comparing it with information available to the system and/or individuals as inputs, enabling the system or its members to improve the quality of performance.

COMMUNICATION AND THE EDUCATIONAL SYSTEM

Before discussing specifically the role of communication in the needs assessment process, let us take a look at typical lines of communication within an educational system and between the system and its environment.

Overlaid on the model of system-environment relations can be placed a model of the communication process. Taking into account the linkages of source, message, channel, and receiver, we can describe typical communication patterns and flows under two types of systems, open and closed.

School systems have until recently operated as closed systems from the standpoint of information flow for decisions on goals and planning. That is, most of the information came from within the system itself. Although in a general way the goals of education (often not specifically described and recorded) came from outside the system, being the general goals of a presumably educated citizenry, it was rare that people outside the system were consulted or listened to in formulating goals and needs.

Communication in such systems tended to be hierarchical, top-down, and directive, with little input from outside the system. That is, policies and plans were usually formulated at the top and communicated downward from administration to teachers to students. Except for the role of elected school boards, parents and others in the community were viewed as recipients of information about the school's programs or about the progress of individual students. Decision making rested almost entirely within the system. Information outward was designed to elicit support, mainly financial.

Traditionally, then, the sources of information for planning and decision making were typically from persons within the system, and the flow was apt to be from the top down. The major sources of decision were the school board and administrators.

The messages were typically policies, plans, procedures, and directives related to the implementation of curricula, the operating procedures of schools, and the maintenance of plant and facilities. The receivers were teachers, students, and to a lesser extent, parents.

Channels for such communication tended to be preponderantly written rather than oral. Manuals, guidelines, curriculum guides, dress codes, letters to parents, bulletins, newsletters, and the like carried the bulk of the messages. Public meetings, hearings, organizational meetings such as P.T.A.s and schools' "open house" nights constituted major ways of informing the public about the educational

program and its accomplishments.

Since the local school system is a subsystem of the state, it of course receives mandates and other communication from legislative and state department of education sources. Again, this communication tends to be top-down, one-way, and hierarchical, with little feedback or upward communication. Lateral or horizontal communication exists among districts and among individual educators through a variety of professional organizations. Informal networks exist but rarely influence goals or policy.

The foregoing description sounds very much like the communication flows and decision-making processes characteristic of System 1 or System 2 organizations (Likert 1967)--and indeed, that is the case. Kaplan (1973) notes that prior to the mid-1960's, in what he calls Stage I, educational planning was essentially prescriptive--its function was to facilitate and support a set of a priori assumptions. These included as "givens" that the values and goals of the system were appropriate and acceptable, and that the structure of the system was generally satisfactory.

COMMUNICATION IN OPEN SYSTEMS - THE INFLUENCE OF NEEDS ASSESSMENT

Although many school systems are still in Kaplan's Stage I, significant changes have come about in the last decade, leading to what Kaplan designates Stage II of educational planning. During Stage II, educational planning has been primarily to promote efficiency in the system, with a heavy emphasis on systematic means to improve the performance and product of the educational enterprise.

Kaplan holds that currently we are seeing another phenomenon.

"Prior assumptions accorded the educational system and its functioning are no longer held as sacrosanct. Now, educational planners are increasingly concerned with an ascriptive role. What should be the purpose of education? Whom should it serve? What segments of society are presently disenfranchised? . . . What basic changes in structure, methodology, and program are warranted and how can these be realized?" (Kaplan 1973, 3)

Out of these trends and developments has grown the concept and practice of

participatory planning. Kaplan notes that in this early stage of evolution, appropriate and effective measures of participatory planning remain to be more thoroughly developed and refined. He raises three major concerns: (a) the process of communication, (b) the quality and use of data, and (c) the nature of group dynamics and the interpersonal exchange (Kaplan 1973, 6-8).

[It should be recognized that there have been several forces at work since 1965 to bring about changes in the schools, both as to communication and as to management structure and style. Influences from the business world and the military led to concepts of systems analysis and systematic planning. Administrators became managers, but also change agents (The Administrator and Organizational Renewal 1973; Blanchard and Henry 1973). Administrators began to introduce participatory planning into their systems (Kaplan 1972, 1973), and to attend workshops in organizational development.

It is in this context of constant new demands and influences on the schools to become more innovative yet systematic, responsive to change yet planning ahead, participative yet productive, that needs assessment strategies and concomitant communication processes must be viewed. For needs assessment has become both an antecedent and a presumed potent vehicle for the fulfilling of all these demands.]

To return to the communication parameters:

When needs assessment models of any type are consciously and systematically implemented in a school system, these changes tend to occur:

- The source of information for decision making becomes the parents, students, teachers, classified staff, employers, and various segments of the surrounding community, rather than the legislature, the school board, or the administration. That is, there is much more communication from the environment to the system, and from below upward.
- The messages are various. They may be lists or statements or aggregations of concerns, wishes, problems, causes, solutions, or gripes. Depending on the type of model used, the messages may be open-ended and unstructured, or they may be structured and limited, but they tend to be quite different from other types of communication in the typical closed system. Most models include provision for messages which require various kinds of judgments from the informants or participants--such as rating goals or objectives for importance, and making judgments of the extent to which those goals have been attained in a school.

- The receivers are those in planning and management positions. At the school level it might be only the principal, or the principal and a committee of faculty. But it might also be a planning or management team composed of top and middle management, faculty, students, parents, and perhaps representatives of employers in the community.
- Finally, the channels tend to be quite different from those in Stage I systems. Written channels are typically paper-and-pencil surveys, questionnaires, and rating scales. Spoken channels may be structured interviews, community "speak-ups," structured concerns conferences where participants perform certain decision-making tasks in small groups, and small group focus interviews.

Figure 2 shows the relationship of the communication linkages in needs assessment to the input-process-output flow of a system. No one assessment model uses all of the communication strategies shown, but any model can be described with these parameters. (None of the column lists should be regarded as complete.)

 Insert Figure 2

The communication networks, flows, and patterns which characterize needs assessment models indicate a trend toward System 3 structure (Likert 1967) and toward participative management (Campbell 1974, Kaplan 1972). The relationship between communication in needs assessment and participative management in schools will be discussed later.

Needs assessment, then, has produced new kinds of communication in educational systems. There is much more communication across system boundaries than before, in different directions, and for different purposes.

Referring again to Figure 1, the "valued targets" are now consciously sought by school managers, and crystallized as the first stage of the needs assessment effort. The boundaries between the system and the environment are much more fluid, and communication is two-way, rather than one-way. Within the system, information from the needs assessment acts as a feedback loop to generate new inputs for system planning.

There is no one universally accepted model of needs assessment, although most have been derived in a general way from Kaufman's discrepancy model developed in a system context (1972). Researchers at the Northwest Regional Educational Laboratory have published a model describing a planning and evaluation cycle consisting of five activity clusters, moving from needs identification→problem-policy transformation→policy-program transformation→tactical program design→monitoring, with detailed intercommunication links among them, through associated management information systems (Bell, Hagans, Harper, and Seger 1971). Figure 3 illustrates Cluster A in the cycle--needs identification. Their

Insert Figure 3

description of Cluster A sums up the process for a theoretically complete needs assessment.

"Two groups of constituents are used in determining (1) the expectations (what should be), and (2) the actual situation (what is) in the educational system. Group 1 includes clients (students and parents), client users (businesses, agencies, and industries), legal bodies, educational agencies and existing studies which comprise the major sources of information about system expectations. Group 2 includes educational institutions, legal and legislative bodies, governmental agencies and existing studies which provide factual information about the present operation of the educational system. These groups participate in the two following areas:

- "1. Current expectations of the nature, function, and objectives of education are collected from Group 1, followed by future expectations which are forecast on the basis of existing studies and projections of social trends, population change, manpower availability, etc. Current and future expectations are then synthesized, screened, and validated. (Synthesis involves the combination of expectations and distillation of need statements from that combination.) Decision makers, guided by policies and values, screen the need statements to identify those needs which can be appropriately satisfied (in the sphere of education) through educational activity. The validation process then takes revised statements of expectations or needs back to the reference groups which first generated them and establishes their accuracy. An example of a need statement is, "Students need to experience the acceptance of responsibilities and to learn to make decisions." Statements of needs are then transformed to observable indices which are measurable.

"2. Once needs have been identified and stated in measurable terms, relevant data (what is) can be collected; this data can be thought of as baseline information. Pertinent records in the institution implementing the system then can be identified and the necessary data gathered. If current records do not contain data relative to a need, then additional information is collected. The resultant data block is then supplemented by forecasts from sources not involved in implementing the planning system. The total body of data then is organized and extrapolated.

"'What is' and 'what ought to be' (1 and 2 above) are synthesized to permit analysis of the discrepancies. The magnitude and significance of these discrepancies is then determined. The resulting list of priority needs is the output of Cluster A."

(Bell, Hagans, Harper, and Seger 1971, 9-11)

COMMUNICATION METHODOLOGY

Very few needs assessment models have been field tested and evaluated. However, some studies have been undertaken on the feasibility of using certain processes or methods.

Public opinion polls. Gish (1972) tested the feasibility of public opinion polling on the Gallup/Kettering model at the local district level. He designed a questionnaire and a method that could be replicated locally, at a cost of \$2,000-\$10,000 if done "in house." Many regional and statewide studies have incorporated such public opinion polls in their assessments, in Maryland, New Jersey, and Colorado, for example.

Speak-ups. One of the earliest large-scale community involvement assessments was done in Fresno, California, where 10,000 participants were solicited in the community. The Speak-up was promoted through the mass media, talks to community and civic organizations, and P.T.A. councils. The method was neighborhood "discussion parties," each with an average of six to eight participants.

Discussion leaders were asked to "hold a small informal party. Invite a few. . . people to discuss aims and objectives for our public school system." The project provided questions to guide the discussion, and a discussion leader's and a participant's guide (Speak-Up 1968).

Charrette. Some communities have adapted the Charrette to needs assessment.

Charrette is a variation of group process to involve a variety of groups in the community in facilities design. The Charrette is based on the belief that effective decisions can be made by group interaction and general consensus before issues grow into formal disputes. Representatives of all parties having responsibility for or connection with the project are involved from the beginning. Procedures have been developed to arrive at all decisions openly, to communicate the reasons for accepting or rejecting a proposal, to generate as many creative solutions as possible in a short period of time, develop them, and come to some basic decision.

Groups do not use voting, but the final rounds involve debating the merits of each proposal in an open meeting. Finally, the Charrette makes as many final decisions as possible through common agreement, and designs a process for resolving proposals that are deadlocked (Mylecraine n.d., 189-191).

Peccolo (1971), in a three-county study in Tennessee, evaluated the Charrette and found it effective for identifying educational needs and planning new programs.

Focused Interviews. One of the few studies reporting the refinement of a communication research methodology for needs assessment was done by Blackwell and Joniak (1974). One purpose of the research was to determine if parents of heterogeneous background, who have children of high school age, have specific goals for the education of their children, and if these goals could be elicited during an interview. The authors did three studies and developed four components to the method: elicitation, simplification, categorization, and prioritization.

Goal statements were reduced, refined, and categorized in stages. The authors concluded:

"An assessment of the content of the goal statements suggests that parents' goals for secondary education are based on their own personal experiences and those of their children. This assessment is supported by the lack of concern for innovating educational changes. However, it can be concluded that parents definitely do have goals for the education of their children and that those goals can be elicited in an interview." (Blackwell and Joniak 1974, 22)

The focused group interview was used to gain insight into needs that surfaced in a statewide study using a questionnaire (Phase II: An Assessment of Educational Needs for Students in Washington State 1970). Researchers conducted 34 group interviews, averaging two hours each. The interviews were taped, transcribed immediately, and contents analyzed. The classification scheme was reviewed by a second analyst to eliminate bias.

Telecommunications. In order to reach groups not adequately served by the schools, a UHF television station owned and operated by a community college district in Southern California used videotaped panel discussions (KOCE-TV Needs Assessment Surveys 1974).

As one part of a research project to determine the educational and public service needs of the service area, they held meetings of 10 discussion panels: professional and white-collar workers, Mexican-Americans, senior citizens, blue-collar workers, handicapped, fifth and sixth grade children, and college-level educators. Discussions were videotaped at the KOCE-TV studios. Five groups of community lay persons (N=154) were later invited to the studios to review the tapes and to provide reactions to the opinions of the original panel participants. The project was funded by a grant from PBS.

The conclusion was that:

"There is a need for grassroots involvement in developing educational and public service activities. Sooner or later every group with which we talked brought out the necessity for personal contact and human-to-human interface as important components of any program devised to meet the needs of Orange County."
(KOCE-TV Needs Assessment Surveys 1974, 31)

They wanted close and meaningful liaison with the community, not rubber stamping of community advisory groups.

A feature of the goal-setting phase of a two-year project in New Jersey was the active use of all available mass media to promote support and cooperation for the project. A special campaign was instituted, using television commercials, an eight-minute orientation film, radio spot announcements, newspaper releases, and

special publications and reports, including several official communications from the Commissioner of Education to all local school districts (Kaplan 1972).

This use of mass media to encourage a flow of ideas and information into the educational system is in sharp contrast to past uses, which have been largely limited to disseminating information when educators solicited support for an upcoming election or bond issue.

Delphi technique. Many needs assessment studies have used the Delphi technique or a variation of it to achieve consensus on goals, concerns, or other items. The Delphi method was developed at the Rand Corporation to organize and share forecasts about the future by experts (Helmer 1966).

Weaver (1971) capsulizes the procedure:

"Typically, the procedure includes a questionnaire mailed to respondents who remain anonymous to one another. Respondents first generate several rather concise statements of events, and in the second round give estimates as to the probability of each event occurring at a given date in the future. Once the respondents have given their answers, the responses are collated and returned to each respondent who then is invited to revise his estimates. The third-round responses are made with the knowledge of how others felt regarding the occurrence of each event. Again, the responses are assembled and reported back to the participants. If a respondent's estimate does not fall within the interquartile range of all conjectures, he is asked to justify his position, whether or not he wishes to change his position." (Weaver 1971, 267)

Its principal features, then, are anonymity of the respondents, iteration and controlled feedback, and statistical group response.

Delphi can be used to gather responses on criticality of goals and areas of greatest need, and to arrive at consensus on present attainment of goals, among other uses. In practice, the mailed questionnaire has not been used extensively in educational applications. In some variations, groups meet face-to-face, but methods are employed that ensure the anonymity of individual responses. The intention is to make certain that estimates reflect rational judgment, and that individuals' perceptions will not be swayed by the influence of opinion leaders in the group.

Delphi technique has been used by the Institute of Government and Public Affairs at the University of California, Los Angeles, to generate perspectives on changes in American education. A study was also done at the University of Virginia to assess scientifically the needs, desires, and opinions of the clientele. The latter involved 400 respondents, rather than the usual 50 or fewer; the respondents were not necessarily experts in the field, and the technique was used to reach agreement on what should happen, rather than to predict what will happen (Cyphert and Gant 1971).

A somewhat different application has been made by TARGET (To Assess Relevant Goals in Education Together) which combines the Delphi technique with a game procedure (Wishart 1972).

The information produced by the Delphi process in TARGET results in five indices: educational goal, quality of life, perceived achievement, priority, and education trend. Statements for each index are derived from people meeting in groups, but writing their own statements anonymously. Procedures are described for sorting, categorizing, and ranking the outputs for each index.

The Delphi procedure is used to obtain baseline data. The game procedure of TARGET is a variation of the Q-sort. In the game phase, larger numbers of people have an active role in furnishing information pertinent to decision making about priority areas of need.

Cunico (1973) also verified the Delphi technique as a valuable research instrument for gathering data on needs and future directions from professional persons who could not otherwise be gathered into one group without much effort and expense. He used it to ascertain future directions for industrial education.

Delphi has also been used to identify goals and program directions for the schools of Washington State (Rasp 1972) and as part of the methodology to design a universal model for the school of the future for the Dallas-Fort Worth "metroplex" (Skyline West Educational Plan, October 1974).

Weaknesses of using Delphi for forecasting have been pointed out by Weaver (1971). They will not be summarized here. However, Weaver believes that Delphi, in combination with other tools, "is a very potent device for teaching people to think about the future of education in much more complex ways than they ordinarily would."

In needs assessment and policy making, however, Delphi is often used not to forecast the future but to set goals and priorities and to think in a more complex way about the potential needs of learners and institutions, given alternative futures. It may become increasingly useful for doing needs assessments across large geographical areas.

METHODOLOGICAL ISSUES AND PROBLEMS

Cross-cultural communication. Communication with minority racial, ethnic, or language groups has received scant attention in needs assessment models, although many pay lip service, at least, to the involvement of "all sectors of the community." Two or three survey instruments have been translated into Spanish. Little inquiry has been undertaken, however, on cross-cultural considerations in methods used.

Moore and Senegut (1973) report the use of certain needs assessment techniques which had as their aim the development of more open communication between native Alaskans and the white population. The Center for Northern Educational Research at the University of Alaska developed a method of statewide community participation in needs assessment. Core staff were a well-known Eskimo artist and writer, a Tlingit Indian teacher with a master's degree in school administration from University of Alaska and with Peace Corps teaching experience, and a white teacher with a master's degree in elementary teaching.

In six regional workshops they used small groups, large groups, shared meals, films, and role playing. They considered the factors of physical surroundings of meeting areas, grouping of people, degree to which the agenda was structured,

and direction taken by speakers and consultants.

In the effort to foster more meaningful communication between the whites and native peoples, they paid considerable attention to group arrangements, status factors, and kinesics. They concluded that the fostering of communication channels was "difficult, painful, arduous, and frustrating" for the staff members, consultants, and participants.

Aside from this study, there have been almost no guidelines for involving minority groups or non-English-speaking parents and citizens in goal setting and needs assessment.

Sampling. Communication problems are often compounded by inadequate sampling techniques. Although many models offer guidelines for sampling, in practice I have found that adequate sampling of the various publics is usually done only when external consultants assist with the assessment. When districts or schools conduct their own, they tend to involve the public in ways such as these: issue a general invitation to interested parents to attend a meeting or conference; appoint a faculty-parent committee and have them ask their friends, or augment the committee at their own discretion; use existing school-community advisory groups, which may be heavily weighted with parents of children in compensatory education programs; make door-to-door surveys by neighborhoods.

Reliability and validity of inputs. Most models rely heavily on perceptions or judgments of respondents regarding the relative importance of goals ('what should be') and the present status of attainment of those goals ('what is'). They also may ask for judgments on programs the schools should undertake, or priorities for budget cuts or reallocations.

The reliability of such judgments relates to stability over time and discrepancies in ratings among client groups. Ritter (1966) found that respondents' views changed after factual information was supplied. Rasp (1972) found greater variance in responses stated as process statements than to those stated as products

or educational outcomes. Delphi studies usually show a convergence of opinion after two or three rounds, but the first round may show wide variances.

Since the majority of needs assessment models do not use Delphi, and in fact are "one-shot" efforts with little or no input to the participants on factual data about the schools or on the responses of others, it is evident that the outcomes of needs assessments can be heavily influenced by methodology used.

Although Neff (1973) found significant agreement in perceived priority of needs among lay citizens, teachers, and students in rural and suburban communities, other studies have not borne out this agreement (Kaufman 1972). Dell (1974) using a magnitude estimation scaling technique, not only found large discrepancies among parents and faculty, and between male and female parents, as to the order of ratings, but very great differences in magnitude of the scale between the ratings for each group. In ranking four science objectives, for example, the lowest ranked objective for one client group had a higher scalar value than the highest ranked objective for another group. Thus, different types of communication elicited may result in very different pictures of consensus or disagreement among groups, and thus give very different bases for decision making.

A serious question also arises regarding the validity of clients' judgments of present attainment of broadly stated goals when these are not confirmed or supported by achievement test scores, criterion-referenced measures, or other "objective" data. An estimated 10,000 school administrators have attended workshops to assist them in implementing a popular model which relies exclusively on subjective judgments of goal importance and goal attainment.*

Risks to the organization. Attempts to introduce participative management into a system and to involve the school and parents in assessing needs have sometimes resulted in considerable resistance and worsened communication. In a three-

*Phi Delta Kappa model--also Appendix. The model has been widely copied and implemented. Case studies indicate that its popularity derives partly from "increased communication among participant groups."

year study of a school district in Ohio (A Profile of Change 1973), a needs assessment performed by Battelle Institute at district request, and various resulting programs to increase participation in planning, were strongly resisted for a variety of reasons. In the third year, all groups but students felt the communication problems had actually become worse!

Blanchard and Hersey (1973), discussing participative and coercive change cycles, have sounded a warning on attempting to implement a change or introduce participation without incorporating the appropriate communication strategy. Furthermore, it is important to know what is the present communication structure. A system previously run on coercive principles will find staff more dependent on administration leadership and less ready for an open system.

Kaplan (1972) gives an insight into an unanticipated problem in connection with participatory goal setting statewide in New Jersey:

"This decision carried with it some consequences that were not entirely unforeseen. Educational groups, including teachers, administrators, and school board members took issue with this approach (placing major emphasis on the public's input and the limitation on the educational contingent). Many regarded the project as a thinly disguised effort to diminish their influence in educational affairs. They were also suspicious over whether the Department of Education did not have an ulterior purpose and that it was perhaps concealing an already developed master plan for introduction at a later date on an unsuspecting public and a reluctant profession." (Kaplan 1972, 8)

Preliminary evaluation of the Alameda County Needs Assessment Model (Witkin 1974), which is being field tested in some 430 schools in California during January-June 1975, corroborates that a small percentage of parents and teachers are, in fact, suspicious of such efforts. Some viewed the questions as an attempt to impose a point of view, rather than an honest request for information from them. Both negative and positive feelings about their involvement were strongly expressed.

TRENDS IN PUBLIC POLICYMAKING AND COMMUNICATION LINKS

An unanticipated side effect of the 10-year thrust toward public involvement in wide-scale needs assessment, (inter-system) and in the encouraging of horizontal

and upward flows of communication (intra-system), has been the rise of new formal and informal communication linkages which exert a subtle but real force on decision making by legal and legislative bodies.

Clasby (Clasby, Webster, and White 1973) has drawn attention to the intended and latent consequences of the recent period of heavy federal initiative on partnership in education. The various titles of the Elementary and Secondary Education Act of 1965 placed a heavy responsibility on state departments of education to collect and assemble educational information on a wide range of topics.

The legislation provided resources for strengthening the capabilities of state departments of education. At the same time, there has been the emergence of increasing interstate cooperation of educational authorities and the rapid development of interstate coalitions and associations with constituencies at the level of local school districts.

These coalitions, such as the Council of Chief State School Officers, the Educational Commission of the States, the National School Boards Association, and federal planning bodies that participate with interstate agencies, have formed a new network of formal and informal communication. What we see emerging is a different kind of political structure for the formation of national educational policy. Clasby suggests that this development, which has a countervailing influence on federal initiatives, would, if carried very far, modify the political relations between the legislative and executive branches of the federal government with respect to issues of educational policy.

Clasby notes that the emergence of new educational coalitions at the national level is still so new that the implications are not yet clear. She points out:

"The nationalization of educational issues through dramatic court decisions has set the stage; instant communication possible in today's society has helped to set the actors in motion. These national groups exist; their capabilities are apparent. . . It is the character of the expectations proposed to them from multiple publics, the kinds of demands and the kinds of support they receive, that will determine what role they play in the educational enterprise in setting directions and priorities." (Clasby, Webster, and White 1973, 49)

Webster (Clasby, Webster, and White 1973) argues that the growth of legislation mandating statewide assessment of schools and school systems may unnecessarily shape the goals of schooling itself and determine the shape that the policy-planning process will have to take.

"In short, in this body of 'accountability legislation' we may be about to give statutory definition to educational goals and to do so in ways that are limited to quantifiable outcomes that can yield data useful for legislative and administrative determination of efficient allocational policies." (Clasby, Webster, and White 1973, 4)

In the same document, Green points out that there are subtle aspects of how goals for the American educational system are being shaped, and that they may be shaped under the guise of doing something else.

In fact, there are two opposing forces at work at both state and national levels in shaping public educational policy through goal setting. On the one hand, local school systems have been given the responsibility to develop goals and set priorities through massive involvement of the community, and through procedures which enlarge the possibilities for lateral and upward flow of communication within and between systems. On the other, state and federal accountability legislation, by instituting massive testing programs of students in certain narrow areas (mainly reading and mathematics), in effect define the high-priority goals of education for all, regardless of what other needs are communicated through the local needs assessment process.

A recently noted phenomenon in California education is an "invisible network" of the 20 largest school districts in the state. At various times the network may consist of top or middle management, at others of directors of research departments. This network is increasingly consulted by State Department of Education department heads when policy or procedural changes are forthcoming, and the districts have become an informal testing ground for new approaches to goal setting and need identification.

NEEDS ASSESSMENT AND ORGANIZATIONAL COMMUNICATION

Research in organizational communication in business and industry has shown that the communication quality of organizations is directly and significantly related to organizational performance; and that shared power approaches, including group problem solving and decision making, are more effective in changing an organization than either unilateral or delegated authority approaches (Hain and Tubbs 1974). Relationships between certain patterns of communication and decision making, on the one hand, and organizational structure and management style, on the other, seem fairly well established as well (Likert 1967).

Hain and Tubbs (1974) have proposed a basic model to study organizational effectiveness and communication in business organizations. Some such model is needed for the study of organizational communication in school systems, and in school-community system interfaces.

On the face of it the rapid spread of strategies for involving the public in shared goal setting and needs identification, and the reversal of direction of information and decision flows within the system, should lead to much more satisfaction for all concerned--and to better quality education as well. Yet this is not necessarily the case. Instead, as the Westlake, Ohio experience referred to earlier shows, concerted attempts to improve communication may actually worsen it.

An important variable is the source of the impetus for conducting a needs assessment--i.e., is it required by an external funding source (thus seen as coercive), or does it develop out of participative planning efforts initiated within the system (thus seen as self-directive and innovative)? A second variable is timing. Does the needs assessment follow some efforts at internal organizational development and improved communication flow? Or does it precede such efforts, and thus impose System 3 communication and decision patterns on System 1 or 2 management structure?

A third variable is the credibility of the educational system in the eyes of

its constituency. If communication has previously been hierarchical, directive, and exclusionary, sudden changes are likely to be viewed with suspicion. What's the hidden agenda? people want to know.*

The credibility gap works both ways. The requirement that schools use participative models of needs assessment is in part intended to overcome the fact that the educational establishment may be unresponsive to ideas that come from sources that they perceive as having low credibility. Grunig (1972) found that social agencies rarely listen to the poor. Studies on heterophily/homophily have shown that although in certain instances a certain amount of heterophily enhances acceptance of a communication, the discrepancies between source and receiver cannot be too great.

Without a formal communication network or linkage which not only invites but encourages inputs to the system, very few inputs will come from such groups as the poor, and minority groups of all kinds, including students. Needs assessment models seek to actively encourage inputs from such groups, and to change the communication pattern from a one-way flow of information to a circular flow of shared concerns, problem solving, and decision making. Whether in fact they do so merits much more study.

Finally, a much-overlooked variable is the management of the process. Few educational administrators have adequate background in communication theory or organizational communication. Most needs assessment models offer little or no guidance on important and often subtle communication variables. Management schemes, when detailed at all, are usually confined to the obvious--size of committees, length of sessions, card-sorting procedures, and the like. When poorly managed, needs assessments are seen as just one more "Band-Aid" applied to an overburdened

*Some interesting guesses by participants are turning up in the field study of ACNAM (Witkin 1974; also Appendix). These range from assuming that the needs assessment is somebody's doctoral study--doctoral studies in the schools are often highly resisted--to the suspicion that it conceals a plot to impose "humanistic" education on an unsuspecting populace!

and malfunctioning system.

DIRECTIONS FOR FUTURE RESEARCH

There has been almost no research into the communication aspects of participatory modes of goal setting and other needs assessment processes, and the influences of different methodologies on the kind and quality of the resulting policy decisions. We need better paradigms for organizational communication and decision making related to such public entities as school systems. Educational organizations have strong, hierarchical structures, but are dependent on a flow of energy, including dollars, from outside the system.

The "valued targets" of the system must, of necessity, come from outside the system, although in the past this was not really recognized. But the flow of energy has not typically been matched by an adequate flow of information.

Research is needed to establish relationships among the types of organizational structure of a system, the types of needs assessment models used, the types of communication, and the decisions made. What happens in the organizational structure and in its communication networks (both internal and external) when a school system begins to involve the public in participatory goal setting and planning? What changes within the system must take place in order to make the communication exchanges meaningful?

A trend that bears investigation is the opening out of the school "walls" so that the system actually includes much of the community. What new communication and decision-making networks will arise, as the participation of the public in policy making changes the locus and nature of the school itself? Such developments as the community school, store-front schools, experience-based career education schools, and the like are taking many students out of traditional education settings and placing them in the community for a major part of their learning.

What has been the effect of new modes of communication on the management style of upper- and middle-school management--and vice versa? Conversely, what has been

the effect of organizational development and management training on the communication in needs assessment? Is there a greater readiness to implement more participatory decision making after organizational development?

There is a need for communication audits in local and state educational agencies to establish norms and profiles relating organizational types to communication parameters. In what ways do these differ from business and industrial organizations? What is the impact of permanent school- and district-level citizens advisory committees on internal and external communication flow and on decision-making processes?

Finally, research is needed on cross-cultural communication as it relates to involvement of racial, ethnic, and linguistic minority groups in educational goal setting and planning.

The summer 1973 issue of the Journal of Research and Development in Education was devoted entirely to the subject, "Communicating." W. C. Wolf, Jr., guest editor, stated, "Communication is one of the most overarching, and ironically the least studied and understood, of education's persistent and ^{Thorny} theory problems." But he continued:

"Educators no longer take communicating for granted; rather, they have confronted the problem of communicating head-on. . . . More people have tackled the problem of communicating within the field of education during the past decade than in the entire previous recorded history of the field. Results are beginning to be felt." (Wolf 1973, 1-2)

That statement may be overly optimistic. Except for portions of one or two articles, most of the writers were concerned with improving the methods of communicating research findings to the practitioner, or of disseminating information on educational innovations--essentially the business of one-way, top-down, informative or instructional communication.

That educational researchers and planners have become aware of the importance of communication is all to the good. But the field for research and theory building in organizational communication is still wide open.

FIGURE 1

A MODEL OF BASIC SYSTEM-ENVIRONMENT RELATIONS

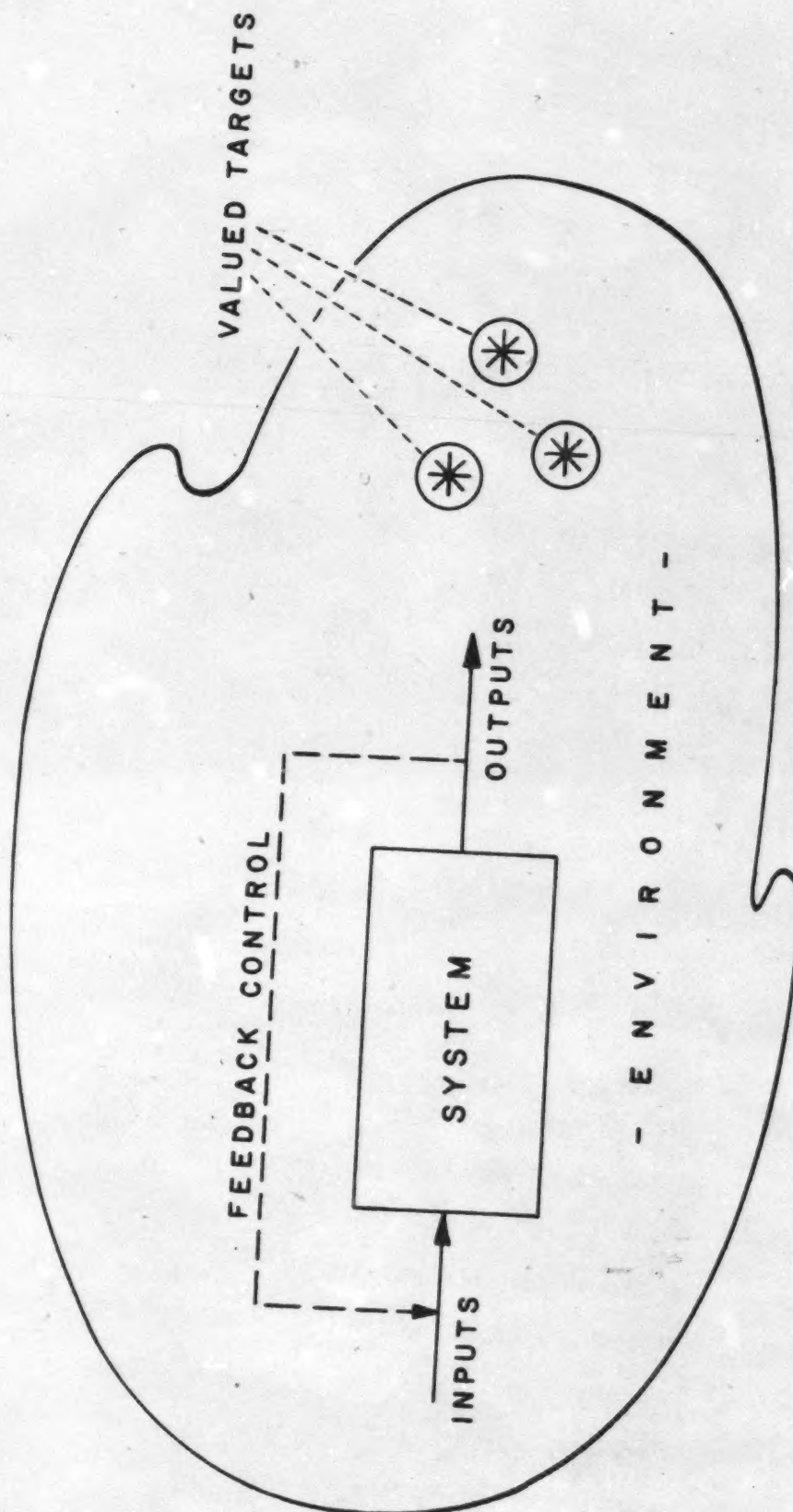


FIGURE 2

COMMUNICATION LINKAGES OF NEEDS ASSESSMENT
IN A SYSTEM CONTEXT

Inputs		System Processes		Outputs	
Sources	Messages	Non-Interactive Channels	Interactive Channels	Messages	Receivers
1.0 Internal to system	1.0 Goal statements	1.0 Written Surveys	1.0 Group Q-sorts	1.0 List of goals ranked for importance	1.0 Internal system
1.1 Board	2.0 Judgments of goal importance	2.0 Rating scales	2.0 Small group discussion	2.0 Lists of goals ranked for attainment (perceived or actual)	1.1 Planning -Staff -Parents -Students
1.2 Management	3.0 Judgments of system responsibility to implement goals	3.0 Individual Q-sorts	3.0 Focus group interview	3.0 Ranked learner needs	1.2 Policy -Management -Board
1.3 Staff	4.0 Perceived status of goal attainment	4.0 Public opinion polls (individual interviews)	4.0 Committees	4.0 Ranked institutional needs	2.0 External system
1.4 Clients (students)	5.0 Expectations of future states	5.0 Delphi studies	5.0 Community "speak-ups"	5.0 Statements of discrepancies -quantitative -qualitative	2.1 Clients
2.0 External to system	6.0 Values	6.0 Critical Incident Technique	6.0 Games	6.0 Priority list of "needs"	2.2 Users
2.1 Clients (parents)	7.0 Concerns	7.0 Written futures scenarios	7.0 Role-playing	7.0 Recommendations for action	2.3 Legal bodies
2.2 Users -business -agencies -industries	8.0 Performance data		8.0 Group scenarios (future games)	8.0 Reports	2.4 Legislative bodies
2.3 Legal bodies	9.0 Demographic data		9.0 Modified Delphi (interactive)		
2.4 Other educational agencies					
2.5 Existing studies					

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